

In the Claims

1-27 (canceled).

28 (new). A method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:

- a. isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells; and
- b. immunizing an animal host by said isolated lipid rafts.

29 (new). The method according to claim 28, wherein said type of PrP<sup>Sc</sup> cells are either PrP<sup>Sc</sup> sensitive cells or PrP<sup>Sc</sup> resistant cells.

30 (new). The method according to claim 28 further comprising:

- c. producing hybridomas from the immunized animal host, wherein said hybridomas produce monoclonal antibodies;
- d. selecting said monoclonal antibodies; and
- e. purifying said selected monoclonal antibodies.

31 (new). The method according to claim 30, wherein said selecting further comprises selecting monoclonal antibodies that modulate conversion of PrP<sup>C</sup> into PrP<sup>Sc</sup> of said type of PrP<sup>Sc</sup> sensitive cells.

32 (new). The method according to claim 29, wherein said type of PrP<sup>Sc</sup> sensitive cells are neuroblastoma cells.

33 (new). The method according to claim 32, wherein said type of neuroblastoma cells are scN2a or N2A cells.

34 (new). A method of identifying a lipid raft target comprising identifying an antigen that binds to antibodies that bind isolated lipid rafts from a type of PrP<sup>Sc</sup> cells and determining a partial or full amino acid sequence or nucleic acid sequence of said antigen.

35 (new). A composition of matter comprising:

- (a) a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
  - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
  - (ii) immunizing an animal host by said isolated lipid rafts; and
  - (iii) producing hybridomas from the immunized animal host, wherein said hybridomas produce monoclonal antibodies;
- (b) the hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
- (c) the hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901;
- (d) the hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603;
- (e) an isolated antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
  - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
  - (ii) immunizing an animal host by said isolated lipid rafts;
  - (iii) producing hybridomas from the immunized animal host; and
  - (iv) isolating the antibody produced by said hybridoma;
- (f) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
- (g) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901;

- (h) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603;
- (i) an antigen, or specific portion thereof, that binds to:
  - (A) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
    - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
    - (ii) immunizing an animal host by said isolated lipid rafts;
    - (iii) producing hybridomas from the immunized animal host; and
    - (iv) isolating the antibody produced by said hybridoma;
  - (B) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
  - (C) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901; or
  - (D) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603;
- (j) an isolated antibody, monoclonal antibody, chimeric antibody, fully humanized antibody, anti-anti-ID antibody or fragment thereof being capable of specifically binding an antigen that binds to:
  - (A) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
    - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
    - (ii) immunizing an animal host by said isolated lipid rafts;
    - (iii) producing hybridomas from the immunized animal host; and
    - (iv) isolating the antibody produced by said hybridoma;
  - (B) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;

- (C) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901; or
- (D) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603; or
- (k) a pharmaceutical composition comprising a pharmaceutically acceptable carrier and:
  - (A) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
    - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
    - (ii) immunizing an animal host by said isolated lipid rafts;
    - (iii) producing hybridomas from the immunized animal host; and
    - (iv) isolating the antibody produced by said hybridoma;
  - (B) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
  - (C) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901;
  - (D) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603; or
  - (E) an isolated antibody, monoclonal antibody, chimeric antibody, fully humanized antibody, anti-anti-ID antibody or fragment thereof being capable of specifically binding an antigen that binds to:
    - (a) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
      - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
      - (ii) immunizing an animal host by said isolated lipid rafts;
      - (iii) producing hybridomas from the immunized animal host; and
      - (iv) isolating the antibody produced by said hybridoma;

- (b) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
- (c) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901; or
- (d) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603.

36 (new). The composition of matter according to claim 35, wherein said hybridoma produces monoclonal antibodies that modulate conversion of PrP<sup>C</sup> into PrP<sup>Sc</sup> of said type of PrP<sup>Sc</sup> sensitive cells.

37 (new). The composition of matter according to claim 35, wherein said hybridoma is produced by immunizing an animal host with neuroblastoma cells.

38 (new). The composition of matter according to claim 37, wherein said hybridoma is produced by immunizing an animal host with neuroblastoma cells selected from scN2a or N2A cells.

39 (new). The composition of matter according to claim 35, wherein said pharmaceutical composition comprises an antibody or antibody fragment is further capable of regulating a biochemical activity of said antigen or a specific portion thereof.

40 (new). A method of treating a conformational disease comprising the administration of an effective amount of a composition comprising an antibody to an individual having said conformational disease, wherein said antibody is:

- (A) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
  - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
  - (ii) immunizing an animal host by said isolated lipid rafts;
  - (iii) producing hybridomas from the immunized animal host; and
  - (iv) isolating the antibody produced by said hybridoma;
- (B) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
- (C) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901;
- (D) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603; or
- (E) an isolated antibody, monoclonal antibody, chimeric antibody, fully humanized antibody, anti-anti-ID antibody or fragment thereof being capable of specifically binding an antigen that binds to:
  - (a) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
    - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
    - (ii) immunizing an animal host by said isolated lipid rafts;
    - (iii) producing hybridomas from the immunized animal host; and
    - (iv) isolating the antibody produced by said hybridoma;
  - (b) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
  - (c) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901; or
  - (d) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603.

41 (new). The method according to claim 40, wherein said conformational disease is a prion disease, Alzheimer's Disease, amyotrophic lateral sclerosis (ALS), Pick's disease, Parkinson's disease, Frontotemporal dementia, Diabetes Type II, Multiple myeloma, Plasma cell dyscrasias, Familial amyloidotic polyneuropathy, Medullary carcinoma of thyroid, Chronic renal failure, Congestive heart failure, Senile cardiac and systemic amyloidosis, Chronic inflammation, Atherosclerosis, Familial amyloidosis Gelsolin and Huntington's disease, cerebral amyloid angiopathy (CAA).

42 (new). A method for the detection of PrP<sup>Sc</sup> within a sample, which assay comprises (i) contacting said sample with a antigen, or a specific portion thereof, or a monoclonal antibody, antibody or antigen binding fragment thereof; (ii) contacting sample obtained in (i) with PrP<sup>C</sup> or PrP<sup>C</sup> containing mixtures; and (iii) determining the presence and/or amount of PrP<sup>Sc</sup> in said sample, wherein said antigen, or specific portion thereof, binds to:

- (A) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
  - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
  - (ii) immunizing an animal host by said isolated lipid rafts;
  - (iii) producing hybridomas from the immunized animal host; and
  - (iv) isolating the antibody produced by said hybridoma;
- (B) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
- (C) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901;
- (D) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603; or



- (E) an isolated antibody, monoclonal antibody, chimeric antibody, fully humanized antibody, anti-anti-ID antibody or fragment thereof being capable of specifically binding an antigen that binds to:
- (a) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
    - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
    - (ii) immunizing an animal host by said isolated lipid rafts;
    - (iii) producing hybridomas from the immunized animal host; and
    - (iv) isolating the antibody produced by said hybridoma;
  - (b) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
  - (c) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901; or
  - (d) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603; or

wherein said antibody is:

- (A) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
  - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
  - (ii) immunizing an animal host by said isolated lipid rafts;
  - (iii) producing hybridomas from the immunized animal host; and
  - (iv) isolating the antibody produced by said hybridoma;
- (B) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
- (C) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901;



- (D) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603; or
- (E) an isolated antibody, monoclonal antibody, chimeric antibody, fully humanized antibody, anti-anti-ID antibody or fragment thereof being capable of specifically binding an antigen that binds to:
  - (a) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
    - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
    - (ii) immunizing an animal host by said isolated lipid rafts;
    - (iii) producing hybridomas from the immunized animal host; and
    - (iv) isolating the antibody produced by said hybridoma;
  - (b) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
  - (c) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901; or
  - (d) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603.

43 (new). The method according to claim 42, wherein said sample comprises tissue extracted from an animal that has died and said method comprises contacting the tissue with an antibody or an antigen binding fragment thereof and determining if the antibody has bound to said antigen or a specific portion thereof; wherein presence of said antigen or a specific portion thereof in the tissue is indicative of PrP<sup>Sc</sup> infection and wherein said antibody is:

- (A) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
  - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
  - (ii) immunizing an animal host by said isolated lipid rafts;

- (iii) producing hybridomas from the immunized animal host; and
- (iv) isolating the antibody produced by said hybridoma;
- (B) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
- (C) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901;
- (D) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603; or
- (E) an isolated antibody, monoclonal antibody, chimeric antibody, fully humanized antibody, anti-anti-ID antibody or fragment thereof being capable of specifically binding an antigen that binds to:
  - (a) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
    - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
    - (ii) immunizing an animal host by said isolated lipid rafts;
    - (iii) producing hybridomas from the immunized animal host; and
    - (iv) isolating the antibody produced by said hybridoma;
  - (b) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
  - (c) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901; or
  - (d) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603.

44 (new). A method for identifying a compound which modulates the transition of PrP<sup>C</sup> into PrP<sup>Sc</sup> comprising:

(i) contacting said sample with an antigen or a specific portion thereof or with an antibody or an antigen binding fragment thereof and at least another conversion factor (a) in the presence of said modulatory compound and (b) in the absence of said compound;

(ii) contacting the mixtures obtained in step (i) a and (i) b with PrP<sup>C</sup> or PrP<sup>C</sup> containing mixtures; and

(iii) determining the amount of PrP<sup>Sc</sup> (a) in the presence of said modulatory compound and (b) in the absence of said modulatory compound;

wherein said antigen, or specific portion thereof, binds to:

(A) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:

- (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
- (ii) immunizing an animal host by said isolated lipid rafts;
- (iii) producing hybridomas from the immunized animal host; and
- (iv) isolating the antibody produced by said hybridoma;

(B) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;

(C) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901;

(D) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603; or

(E) an isolated antibody, monoclonal antibody, chimeric antibody, fully humanized antibody, anti-anti-ID antibody or fragment thereof being capable of specifically binding an antigen that binds to:

(a) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:

- (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
- (ii) immunizing an animal host by said isolated lipid rafts;

- (iii) producing hybridomas from the immunized animal host; and
- (iv) isolating the antibody produced by said hybridoma;
- (b) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
- (c) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901; or
- (d) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603; or

wherein said antibody is:

- (A) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
  - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;
  - (ii) immunizing an animal host by said isolated lipid rafts;
  - (iii) producing hybridomas from the immunized animal host; and
  - (iv) isolating the antibody produced by said hybridoma;
- (B) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
- (C) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901;
- (D) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603; or
- (E) an isolated antibody, monoclonal antibody, chimeric antibody, fully humanized antibody, anti-anti-ID antibody or fragment thereof being capable of specifically binding an antigen that binds to:
  - (a) an antibody or antigen binding fragment thereof generated by a hybridoma produced by method for generating an antibody against a lipid raft target associated with a type of PrP<sup>Sc</sup> cells, comprising:
    - (i) isolating said lipid rafts from said type of PrP<sup>Sc</sup> cells;

- (ii) immunizing an animal host by said isolated lipid rafts;
  - (iii) producing hybridomas from the immunized animal host; and
  - (iv) isolating the antibody produced by said hybridoma;
- (b) the monoclonal antibody generated by hybridoma clone designated #51 deposited at the ECACC under Provisional Accession No. 05021601;
  - (c) the monoclonal antibody generated by hybridoma clone designated #57 deposited at the ECACC under Provisional Accession No. 05030901; or
  - (d) the monoclonal antibody generated by hybridoma clone designated #245 deposited at the ECACC under Provisional Accession No. 05021603.

45 (new). The method according to claim 44, wherein said conversion factor is Apolipoprotein B or a fragment thereof.